

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A base station apparatus, including:

a receiver which receives signals from a terminal apparatus which is a targeted communication party, each of the signals corresponding to one of a plurality of modulation methods;

a permissible delay time detector which detects, from the signals received by said receiver, permissible delay time in data communication corresponding to an application used in said terminal apparatus;

a decision unit which determines a modulation method to be used for data for the terminal apparatus transmission rate per channel and the number of channels per frame to be allocated to said terminal apparatus, in a communication line that contains a plurality of channels in a frame, according to the permissible delay time detected by said detector; and

an instruction unit which instructs said terminal apparatus to perform communication of data corresponding to the application by using the modulation method communication rate per channel and the number of channels determined by said decision unit.

2. (Currently Amended) A base station apparatus according to Claim 1, further including a quality detector which derives from the received signals a value indicative of the quality of a communication line, wherein

if the detected permissible delay time is greater than a predetermined threshold value, said decision unit determines to use a modulation method capable of transmitting a relatively large amount of data and using a relatively small number of channels, according to the derived value indicative of the quality of a communication line, and

if the detected permissible delay time is less than or equal to the predetermined threshold value, said decision unit determines to use a relatively large number of channels and using a modulation method that ensures a relatively low error rate, in accordance the number of unoccupied channels said decision unit determines the transmission rate per channel and the number of channels to be allocated to said terminal apparatus according to the permissible delay time detected by said detector, the value indicative of the quality of a communication line and a current channel usage rate in the communication line containing a plurality of channels.

3. (Cancelled).

4. (Currently Amended) A communication system, including:
a terminal apparatus which uses a predetermined application; and
a base station apparatus which communicates with said terminal, apparatus via a communication line containing a plurality of channels in a frame, using one of a plurality of modulation methods,

wherein said terminal apparatus transmits information on permissible delay time in data communication corresponding to the predetermined application to be used, and

wherein said base station apparatus detects quality of the communication line and a modulation method to be used for data for the terminal apparatus channel usage rate and determines a transmission rate per channel and the number of channels per frame to be allocated to said terminal apparatus based on the information on permissible delay time received from said terminal apparatus together with the quality of the communication line and the number of unoccupied channels channel usage rate detected.

5. (Currently Amended) A channel allocating method characterized in that, based on permissible delay time in data communication corresponding to an application used in a terminal apparatus which is a targeted communication party, a modulation method to be used for data for the terminal apparatus transmission rate per channel and the number of channels per frame to be allocated to the terminal apparatus are determined for a plurality of channels per frame contained in a communication line connected with the terminal apparatus.

6. (Currently Amended) A channel allocating method, including:
receiving signals from a terminal apparatus which is a targeted communication party, each of the signals corresponding to one of a plurality of modulation methods;
detecting, from the signals received by said receiving, permissible delay time in data communication corresponding to an application used in said terminal apparatus;
determining a modulation method to be used for data for the terminal apparatus transmission rate per channel and the number of channels per frame to be allocated to the terminal apparatus, in a communication line that contains a plurality of channels in a frame, according to the permissible delay time detected by said detecting; and
instructing the terminal apparatus to perform communication of data corresponding to the application by using the modulation method communication rate per channel and number of channels determined by said determining.

7. (Currently Amended) A channel allocating method according to Claim 6, further including deriving from the received signals a value indicative of the quality of a communication line, wherein

said determining includes determining to use a modulation method capable of transmitting a relatively large amount of data and using a relatively small number of channels, according to the derived value indicative of the quality of a communication line, if the detected permissible delay time is greater than a predetermined threshold value,

said determining further including determining to use a relatively large number of channels and using a modulation method that ensures a relatively low error rate, in accordance with the number of unoccupied channels, if the detected permissible delay time is less than or equal to the predetermined threshold value, said decision unit a transmission rate per channel and the number of channels determines the transmission rate per channel and the number of channels to be allocated to the terminal apparatus according to the permissible delay time detected by said detecting, the derived value indicative of the quality of a communication line and a current channel usage rate in the communication line containing a plurality of channels.

8. (Cancelled).

9. (Currently Amended) A program executable by a computer, the program including the functions of:

receiving signals from a terminal apparatus which is a targeted communication party, each of the signals corresponding to one of a plurality of modulation methods;

detecting, from the signals received by said receiving, permissible delay time in data communication corresponding to an application used in said terminal apparatus;

determining a modulation method to be used for data for the terminal apparatus transmission rate per channel and the number of channels per frame to be allocated to the terminal apparatus, in a communication line that contains a plurality of channels in a frame, according to the permissible delay time detected by said detecting; and

instructing the terminal apparatus to perform communication of data corresponding to the application by using the modulation method communication rate per channel and the number of channels determined by said determining.

10. (Currently Amended) A program according to Claim 9 6, further including the function of deriving from the received signals a value indicative of the quality of a communication line, wherein said determining includes determining to use a modulation method capable of transmitting a relatively large amount of data and using a relatively small number of channels, according to the derived value indicative of the quality of a communication line, if the detected permissible delay time is greater than a predetermined delay time is greater than a predetermined threshold value,

said determining further including determining to use a relatively large number of channels and using a modulation method that ensures a relatively low error rate, in accordance with the number of unoccupied channels, if the detected permissible delay time is less than or equal to the predetermined threshold value a transmission rate per channel and the number of channels determines the transmission rate per channel and the number of channels to be allocated to the terminal apparatus according to the permissible delay time detected by said detecting, the derived

~~value indicative of the quality of a communication line and a current channel usage rate in the communication line containing a plurality of channels.~~

11. (Cancelled).